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THE ORGANIZATION OF THE BOOT AND SHOE INDUSTRY IN MASSACHUSETTS BEFORE 1875

SUMMARY

The significance and interest of this investigation, 236. — Scanty supply of materials, and difficulties in their collection, 237. — Stages of the boot and shoe industry outlined and limited, 239. — Illustration and characterization of these stages and their phases: (*a*) Home Stage, 239. — (*b*) Handicraft Stage, Phase 1, ordered or "bespoke" work, 240. — Phase 2, "bespoke" work plus some extra or "sale" work, 242. — (*c*) Domestic Stage, appearance of entrepreneur, 242. — Phase 1, domestic worker makes complete shoe, 245. — Phase 2, specialization in processes and rise of central shop, 248. — Phase 3, inventions to secure standardization and to economize time, 254. — (*d*) Factory Stage, Phase 1, more direct control and supervision with workers in factory, 257. — Phase 2, intensive production with discovery and use of by-products, and with centralization or absorption of allied industries, 261.

THE development of the boot and shoe industry of Massachusetts proves to be an interesting and productive field for economic investigation, not merely because its history goes back to colonial days as one of the leading industries of the states, but more especially because the evolution of industrial organization finds here an unusually complete illustration. The change from older stages to the modern factory stage has been comparatively recent, and survivals of earlier forms have existed within the memory of the old men of today. Sources, direct and indirect, oral and recorded, can be woven together to establish, to limit, and to illustrate each one of these stages and the transitions of their various phases.

The materials used as the basis of the conclusions given here have been gathered within the last six years and at first hand, but the collection and use of such written and oral testimony has been attended with difficulty. No New England shoemaker of a former generation has dreamed that posterity would seek for a record of his daily work.[1] Only inadvertently have the pages of account books, kept to help " in settling " with neighbors and customers, bills, and letters giving amounts and addresses been left for us. These records, however, are scarce and fast growing scarcer. The spring and fall house cleanings and the demolition of old shops to give place to new factories are destructive to valuable papers of this kind and even where an old attic still harbors them, oftentimes molding and fading under leaking roofs, they are generally difficult of access. The recollections of old men and women who have worked on shoes, in producing or distributing them, are even more precarious. Such people are confused by specific questions, even when the investigator is not a stranger to them. Their confidence can, as a rule, be restored only when the appearance of any special course of questioning has been abandoned. The material which is thus gathered comes imbedded in unrelated matter with little perspective, and with much provincialism; yet it is the most valuable as it is the most vital that can be secured. I have prosecuted such inquiries among the older inhabitants[2] in a number of Massachusetts towns, not only where the industry now exists but where scattered shops, the "ten-footers" of the domestic period of shoemaking, are the only visible remains of a once flourishing local trade.

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[1] Exceptions to this do not occur until about 1880 when David Johnson of Lynn and Lucy Larcom of Beverly began to write in prose and poetry about the shoemaker's homely daily life. Since then newspaper reporters have become active in getting such dramatic details as the Blake-McKay and the Howe-Singer relations afforded, or the rise of Henry Wilson of Natick from the cobbler's bench to the vice-presidency of the United States.

[2] I have sought first of all to discover and record the evidence which is daily disappearing. It has seemed, at this stage of the study, more important to reach the octogenarians while their memory still served and their old account books were still undestroyed, than to stop for more than a preliminary examination of the business books and other material now safely deposited in town halls and local libraries.

Besides this oral and written evidence there are available also public official records like town reports, church parish books, and custom house papers; newspaper files with the advertisements of auction sales of boots and shoes, of domestic and imported hides, of demands for apprentices and journeymen, of sailing dates for vessels, and of western despatch or express companies; and, third, centennial and anniversary addresses,[1] and occasional local newspaper or trade paper reports of old men's recollections. The contemporary official documents and newspapers give little of direct value but serve to give the general setting of the community's industrial activity. The local addresses and reminiscences are nearly if not actually contemporary. Tho tinctured and limited by personal and local pride, by inaccuracy, and by fallacious reasoning as to cause and effect, they are full of suggestion, and help in the appreciation of facts found in other places or other relations.

The information thus gathered seems on analysis to confirm inductively and with definite evidence of the transitions the stages of evolution set forth by Karl Bücher.[1] In the boot and shoe industry of Massachusetts before 1875 four stages of production may be definitely traced. Altho the stages are distinct as to characteristics and essential features, they are not so as to time, for overlaps and survivals occur. The household economy or home stage, for instance, characteristic of frontier conditions, was early followed by the handicraft organization which prevailed until the middle of the eighteenth century. The domestic stage of industrial organization with its successive and overlapping phases was well under way before the Revolution and lasted to the middle of the nineteenth century, giving place about 1855 to the factory system which passed into its second phase by 1875.

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[1] For example, a dedicatory address delivered by Mr. Loren W. Puffer at the Plymouth County Court-house, by giving facts about Shepherd Fiske, the agent for Governor Bowdoin of Massachusetts, whose blast furnace at Bridgewater in Plymouth County supplied cohorns and grenobles for use in the colonial wars as well as cast iron kitchen implements for local consumption, furnished substantial clues for a study of the iron business in that locality now so famous for its shoe industry. Upon investigation, an explanation was found for the tardy development of the domestic stage in the local shoe industry. The small shops where nails and other small iron pieces were made by domestic workers and their apprentices, gave way to the shoe makers' "ten-footers" only when the iron industry had developed stronger competitors and advanced to the factory stage. Even then the tool making "habit" survived and North Bridgewater (Brockton) was famous for its mechanical inventions and manufactures for the shoe industry.

To characterize briefly and then to illustrate sparingly these stages and phases is all that can be done in the limits of this article, which undertakes only to give a preliminary survey of an investigation the detailed conclusion of which, with full evidence, will be later published.

(*a*) HOME STAGE

During the Home Stage in the shoe industry in Massachusetts shoes were made only for home consumption. There was no market for them. The standard was individual, "the best you could make or have." The farmer and his older sons made up in winter around the kitchen hearth the year's supply of boots and shoes for the family, out of leather raised and tanned on his own or a neighbor's farm. Sometimes, as the community prospered, a travelling shoemaker, — the traditional itinerant cobbler, — was given jobs enough to keep him busy going from house to house, with his kit in a wheelbarrow or over his back, to help the farmers. Each boy in turn stood on a piece of paper or on the bare floor and had the length of his foot roughly marked off with chalk or charcoal. The shoemaker selected from among his meagre supply of lasts the one which came "somewhere near" that measure. There were only two styles, low shoes or brogans, and high boots.[1]

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[1] Bücher, Die Entstehung der Volkswirtschaft, chap. iv. In Wickett's English translation, pp. 150–184.

(b) HANDICRAFT STAGE

The second or Handicraft Stage came in the Massachusetts boot and shoe industry with easier times in each village in turn. It had been foreshadowed by the itinerant cobbler. Now the real shoemaker could stay in his own shop, working on his own or his customer's supply of leather.[2] He dealt directly with his market in the first phase of this stage and made only ordered or "bespoke" work.

The standard was higher in general in this Handicraft Stage than in the Home Stage, and necessarily higher in some communities than others. There were no gild regulations[3] throughout colonial Massachusetts attempting to keep the standards uniform. The shoemaker's craft, however, was a recognized mystery or industry, and men in Massachusetts were given the title of cordwainer in legal documents if they regularly worked at the trade.[1] The number of master workmen in any one town was comparatively small, of course, in this " direct market " or " town economy " period, dependent as they would be upon the possible orders of a single community.[2] Their journeymen went to the frontier settlements to set up in the craft for themselves, leaving the supply of apprentices to fill their places in the future.

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[1] This scene, made familiar by pictures and descriptions of colonial days in New England, has been enacted for me in pantomime by old men whose childhood was spent in Maine and New Hampshire hill-towns where the Home Stage survived nearly to the Civil War. These men were used during their boyhood to the custom, characteristic of this first stage, of farmers exchanging sole and upper leather, or getting their whole supply by tanning the leather for others. A vat established for neighborhood work was apt to prove the nucleus of shoe manufacture at the close of the second stage of production.

[2] See Mass. Col. Legis. of 1648, quoted and interpreted by John C. Commons in this Journal for Nov., 1909, pp. 41–42.

[3] The gild organization was rare enough to be exceptional. Philadelphia and Boston, receiving more new European shoemakers, and being trade centers from the earliest times, developed and maintained it. Edward Johnson in his Wonder-Working Providence of Sion's Saviour in New England (pub. in 1654, p. 207 of Book 3) gives first hand knowledge of this. Cf. Charter of Boston Shoemakers published in full in the Records of the Mass. Bay in New England, vol. iii, p. 132.

The instruction which the shoemaker could give his apprentices [3] had sometimes the benefit of his own training in Europe, in Philadelphia, or Boston, where the best work was done.[4] One can imagine the journeyman who drifted to the frontier to become a master, as giving to his apprentices, in turn, something less exact and somewhat out of touch with town standards.[1]

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[1] See, for instance, the Suffolk Registry of Deeds, for 21st yr. of Reign of Geo. II, No. 74, p. 145, date Dec. 31, 1747, giving deed of Benj. Hunt of Braintree, cordwainer, to Benj. Randall.

[2] In Middleboro, in the southern part of Massachusetts, Paul Hathaway, who had been the travelling cobbler of the village, decided in 1798, when he was 21 years old, to make people come to him with their leather and let him save his time. As his custom business grew he had 3 journeymen and 2 apprentices in his 15×20 shop on Pleasant Street in the midst of the North Middleboro settlement. The men made the pegs and the shoes in this shop while the women spun the flax thread and made the wax in the kitchens. At 30 years of age (in 1807) Paul Hathaway gave up his craft, for working on the bench hurt his stomach, tradition says, but since immediately upon returning to his farm work, he was known as one of the most progressive farmers in the region and had raised 124.5 bu. of shelled corn on 1 acre, winning a prize which is still on record, one wonders if the community didn't hold out higher remuneration to him as a farmer than as a shoemaker. By 1807 the organization of the shoe industry in that community had passed from the first to the second stage and was on the eve of the second phase of the handicraft stage, where " sale work " was appearing to endanger the profits of purely custom-made work. The competition of Hathaway's journeymen and apprentices must be reckoned with also, as cause for his decision.

[3] The form of apprentice indenture papers was given to boys at school as a part of their written exercises so that future masters and apprentices were familiar with the terms. The form is the one in current use in England in the 18th century. Cf. Ebenezer Belcher's Exercise book, 1793.

[4] Traditions of Josiah Field of Boston, who taught Randolph the first " city ways " of shoe making, are peculiarly interesting and well preserved.

There were times when the more advanced apprentices or even the journeymen spoiled a pair of shoes started for a definite customer, and these remained on the master's hands to be disposed of. Then there were slack times when the apprentices might fairly be expected to "eat their own heads off," to the shoemaker's loss. In such a case the craftsman ventured to make up the stock on hand, to employ this otherwise wasting labor, and then tried to dispose of the shoes in the village grocery store.[2] Since the market was uncertain and slow for this extra work, both stock and labor may frequently have been below the standard used in the custom-made shoes. It might naturally happen that the demands would be more steady and the profits could be relatively higher for this lower cost work, even when it was all done at the direction of the same master shoemaker in the same shop and by the same workers by simply using different standards and different grades of stock. In case the shoemakers lived in villages too far from Boston to attract customers but near enough to send in their surplus product, their attention to sale work

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[1] Asa C. Jones (*b.* 1829) was sent by his father, a custom shoemaker in Nantucket, to Weymouth to learn more points of the trade.

[2] The "general store" account books of Skinner and Ward of North Brookfield for 1813 to 1815 when the second stage still survived there, show Reuben Underwood making $10.90 of shoes between Dec. 21, 1813 and July 10, 1815 to put on sale. Doliver and Norwell, joining forces, worked on a larger scale. These same books show that they made $155.25 shoes "to be left" at Skinner & Ward's "on account" between July 2 and Nov. 1, 1813.

1813		
July 2.	By shoes taken and left	$ 47.79
Aug. 9.	" " 43.54, Aug. 14, shoes 18.75	62.26
Oct. 4.	" " 1.04, Oct. 16, " 13.50	14.54
Oct. 27.	" " 29.62, Nov. 11, " 1.04	30.66
	Total	$155.25

would steadily grow. A seemingly typical case, with all its local flavor, can be followed in detail in the bills, letters, account books, and oral traditions of Quincy Reed of Weymouth. He expected to be a shoemaker just as his great-grandfather William, who landed in Weymouth in 1635, and his grandfather and father had been. In 1809 the father was a master with custom work and probably some sale work for local consumption. As Quincy tells the story; " My brother Harvey began it by taking chickens to Boston. He had a pair of chaise wheels in the barn, and putting on a top piece, loaded her up and drove to town. He hung some shoes on the chaise and we sold them in Boston. We did not have a wagon then, — I can remember when there wasn't a wagon in this part of the town, and between here and East Abington there was only one pair of wheels. All the shoes (custom-order and extra " sale " shoes) before we began business were carried into Boston in saddle bags. . . . We hired a store of Uriah Cotting at 133 Broad Street and fitted it up. Then I used to keep a chest of shoes in a cellar near Dock Square and on Wednesday and Saturday would bring out the chest and sell. I got $15 and $20 a day by it in 1809. I was sixteen and my brother was eighteen years old then. We moved into the Broad Street store with two bushels of shoes. I used to cut out what would promise to be $100 worth a day. We couldn't have them made equal to that, but I could cut them. One day I cut 350 pair of boot fronts and tended store besides. Most of the shoes were made by people in South Weymouth. We had nearly every man there working for us before long. Used to bring out the sole leather swung across the horse's back in those days. We didn't have any capital to start with except father's assurance that ' the boys are all right and will pay their debts.' When we got of age Harvey paid father $1000 for his time and I paid him $3000. By then we had got up a stock of $10,000 and I have the inventory now to prove it. We were getting $2 for the best shoes and $1.25 to $1.50 for the West India shoes. . . ."

This has been quoted at length, even tho it anticipates in part the description of the development in the shoe industry, since it suggests the manner in which that very development was thought of. This was in all probability the way in which the Lynn trade in women's shoes had developed fifty years before that time, indicating how each community worked out the same problem and passed through the same stages of growth at different dates.

(c) Domestic Stage

The close, therefore, of the second phase of the Handicraft Stage, with its growing attention to extra or " sale " work, appears so like the opening phase of the new or Domestic State that it is not readily distinguished, especially where the Handicraft workman changed naturally and gradually into a Domestic Worker employed by a shoe merchant who, as an entrepreneur, marketed the goods. Yet the two stages are fundamentally different. Just as the Handicraft Stage is characterized by the direct dealing of the shoemaker with his market, and his dependence upon his own skill and efforts in making as well as selling, so the Domestic Stage is characterized by the indirect dealing with the market on the part of the shoemaker, who was simply to manufacture the boots and shoes which a capitalist-entrepreneur marketed at his own risk and profit, supplying in whole or in part the tools and materials.

Three phases of the century-long Domestic Stage can be traced, defined, and illustrated. The first, coming gradually by the middle of the eighteenth century, prevailed in Massachusetts by the close of the Revolution.[1] and lasted through the opening years of the nineteenth century. Tho apprentices and journeymen were employed, the less skilled and more irregular labor of the women and girls of the family was also utilized. The shoemaker turned over to the entrepreneur the completed shoe, often the combined labor of every member of his family besides his apprentices and journeymen, but with all the processes done in his shop under his direction. This last fact, that the domestic worker still makes a complete shoe, is to be considered the special characteristic of the first phase of the Domestic Stage.

At the outset of this phase (in some Massachusetts towns as early as 1750), the market was widening and the possibilities of profit were as good in the shoe trade as those in other ventures in the East and West Indies trade.[2] The development of the retail and wholesale trade in cities like Boston and Philadelphia tempted capital. There were already more shoemakers than could be supported by custom work or by the small ventures of extra "sale" work. The newspaper advertisements[1] show the demand for Lynn shoes and indicate the competition which makers of women's shoes in Massachusetts had to meet from imported goods. The Lynn entrepreneurs were specializing in women's and children's shoes[2] and leaving the

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[1] Randolph, which had become a large center of men's boot and shoe manufacture by 1845, was just becoming a separate town in 1793 (having been the South Precinct of Braintree since 1727), but had already passed through the Home and Handicraft Stages into the Domestic Stage by that date. Tradition says that some of its soldiers doing duty at Castle Island during the Revolutionary War had been taught shoemaking by English Soldiers. The historical account of shoemaking in the U. S. Census of 1900 (part III, vol. ix, p. 754) says that in 1778 men's shoes were made in Reading, Braintree, and other towns of the Old Colony for the wholesale trade. They were sold to dealers in Boston, Philadelphia, Savannah, and Charleston, a considerable portion being exported to Cuba and other West India Islands. Whether the industry was new or not to this precinct of Braintree, these soldiers added that craft to farming when they returned to their homes and began to make shoes. One of them, Adonijah French, joined forces with a relative Thomas French, who also had just returned from war and taken up his trade again as tanner and currier. They appear as early entrepreneurs contemporary with Silas Alden, who had his own vat and shop and was employing many domestic workers by the close of the century.

Lynn was far ahead of Randolph in the 18th century both in organization and in standard of work. The account book is still extant of Amos Breed, an entrepreneur of Lynn, who was one of the merchants marketing the Lynn shoes on sale at Boston stores for retail trade or for shipment to the West Indies even before the Revolution.

[2] The London archives hold records for 1771 showing the shipment of 5938 pairs from North America to the British and foreign West Indies. Of these, 1500 pairs of

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shoes are from Philadelphia. The bulk of the shipment probably came from the other shoe center, Boston.

[1] The Boston Gazette of April 23, 1754, advertised among the imported goods at Wm. Merchant's store opposite the Golden Ball on the Town Dock, Boston, women's silk shoes, women's and children's callimanco and Morocco shoes and goloshes.

June 2, 1755, Blanchard Cobb and also Appleton of Boston were advertising women's English clogs and shoes. By the pages of the Boston Chronicle for 1768, May 23d, can be seen that along side the imported shoes they were selling at Fred Geyer's store men's boot soles . . . and *best made Lynn shoes*, by the 100 pair, dozen or single pair. Oliver Greenleaf offered beside his "just imported from London" goods some choice men's shoes. These newspapers also advertised John Dagyr "the celebrated shoemaker of Essex" who had come to Lynn in 1750.

[2] Amos Breed's account books from 1763 to 1796 are typical: —

CIMBIL TO AMOS BREED. DR.

1763		£.	s.	p.
May 7.	To make 20 pairs of Callimanco shoes	26	0	0
" 23.	" " 1 " " " "	1	6	0
June 11.	" " 2 " " " "	2	12	0
" 25.	" " 5 " " " "	6	10	0
July 16.	" " 8 " " " "	10	8	0
Aug. 16.	" " 5 " " " "	6	10	0

BRIGHAM TO AMOS BREED. DR.

1764				
Nov. 2.	To make 21 pr. of Calla shoes	3	17	6
" 17.	" " 10 " " dito	1	16	8
" 28.	" " 1 " " "	0	3	8
Dec. 8.	" " 5 " " "	0	18	4
" 21.	" " 8 " " "	1	9	4

These men, Cimbil and Brigham, are hired to make the shoes. Amos Breed is evidently supplying the stock. He is also keeping a sort of custom retail trade at his home in Lynn.

NATHANIEL HOMES TO AMOS BREED. DR.

1766				
Mar. 8.	To 1 pr. of Call. shoes for Poeb	2	30	0
Apr. 19.	" 1 " everlasting " " Hannah	2	40	0
"	" 1 " leather " " Lydia	1	6	0
	....			
July 12.	" 1 " silk " " self	2	8	0
" 19.	" 1 " russet " " Poeb	2	60	0

Breed not only hired shoes made and sold them for both domestic and foreign trade but he mended them.

making of men's boots and shoes almost wholly to custom work or to cruder local work. Few if any advertisements of men's shoes appear before the Revolution.

During the years of the war, however, the supply of shoes for the Continental army had to be undertaken, and all of the stock raised and tanned in this country. Accounts show that organization had developed in the shoe industry to meet these conditions by the close of the war. Southern and western Massachusetts had come to specialize in men's shoes, brogans and high boots, while Lynn kept to her older specialty of women's and children's. That the boot and shoe business was considered profitable to capitalists and important to the people at large is indicated by the Federal tariff legislation of 1789,[1] which gave protection to this industry. The tradition seems as well founded as it is detailed that this action was due to the shoe merchants of Massachusetts as well as Pennsylvania. Their pressure was strong enough, joined to the general current towards protection, to over-ride the specific illustration of James Madison against protecting shoes.[2]

WM. ESTES TO AMOS BREED. DR.

1774				
Mar. 14.	To mend a pr. of shoes	0	4	6
Apr. 10.	" 1 pr. of shoes	1	16	0
" 26.	" 1 " " russet shoes	2	0	0
May 14.	" mend 1 pr. of shoes	0	12	0
July 15.	" make 1 pr. of shoes	1	10	0

[1] Tariff rates of July 4, 1789: —

On boots per pair, 50 cents.

On all shoes, slippers or goloshes made of leather per pr., 7c.

On all shoes or slippers made of silk or stuff, 10c. per pair.

Tariff of August 10, 1790: provisions of previous tariff kept and one added which put on leather tanned or tawed, and on manufactures of which leather was the chief article, a 7½% ad valorem duty, but excepted raw hides and skins from the 5% ad valorem duty put on other raw products.

By the 7th of June, 1794, the tariff on boots was reduced to 20c. per pair and that on shoes and slippers, clogs and goloshes to 5c. a pr.

[2] " . . . For example, we should find no advantage in saying that every man should be obliged to furnish himself by his own labor with those accommodations which

The increase of market for boots and shoes and its assured protection did not fail to widen the ranks of capitalists and to intensify the manner of production. A new phase, outwardly marked by prosperity and volume,[1] prevailed in Massachusetts from about 1810 to 1837. The extra capital which was tempted into the boot and shoe industry brought severer competition for orders and suggested specialization to secure rapid

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depend upon the mechanic's art, instead of employing his neighbor, who could do it for him on better terms. It would be no advantage for a shoemaker to make his own clothes in order to save the expense of the tailor's bill, nor of the tailor to make his own shoes to save the expense of procuring them from the shoemaker. . . . . The same argument holds good between nation and nation." Cf. Annals of Congress, I Cong. 1834, I, pp. 109–148.

[1] The contrast is shown in the following ledger pages of Belcher's account book for 1808 and 1817.

AMBROSE HOLLIS* to me

To 1 lb. of flax ½, to 1 half Bushel Corn	$00.74
" meat & butter	.36
	1.10
By making 11 pare of children shoes	1.20
To 1 peck of corn	00.27
By making 6 pare of children's shoes	1.20
	.93
By making 8 pare of children's shoes	1.60
To 1 half bush. of corn to 1 lb. of flax	.74
	.76

Entry of 1817 in same book

EBENEZER BELCHER, Cr. TO BASS AND TURNER

Mar. 7.	To making 20 pare of mens shoes	2/	6.67
" 20.	" " 50 " " " "	2/	16.67
Apr. 1.	" " 68 " " " "	2/	22.67
" 8.	" " 5 " " " "		1.67
	" " 20 " "		6.67
May 27.	" " 10 " "		3.34
June 10.	" " 20 " "	1/6	5.00
" 24.	" " 20 " "		5.00
July 11.	" " 40 " "		14.00

* A journeyman, married, and living in other half of Belcher's house.

This entry of 1817 meant steadier work on the part of Ebenezer Belcher and his journeymen for he was doing as much as this for other merchants at the same date. Shoe making could no longer be a farmer's by-employment. It also meant that specialized work had come into the industry, for by this time the term "making" included only the processes of lasting and bottoming.

work, and this specialization in processes may be taken as the characteristic of the second phase of the Domestic Stage. The time factor seemed more vital than the quality, for with such big, insistent markets, a merchant could afford to lose a disgruntled customer, sure of having plenty of others. Already the producer did not have to face the consumer or have his reputation hurt by occasional bad work. The standards were therefore lowered, and the competition of employers let into the trade less skilled and almost unskilled labor to do the cheaper work on men's brogans and women's and children's shoes for the well developed trade in the West Indies and the South. A wide difference arose not only between the quality of custom and domestic work, but between the wages of " real journeymen " and shoemakers.

As the workers grew more numerous in the employ of each Massachusetts capitalist and were scattered in their shops, called " ten-footers,"[1] over a wider area, in fact all through New England, from Portland, Maine, to the Island of Nantucket, the need of inspection of the finished product, as well as of saving in the cutting of stock at the central shops became vitally necessary. Previously the stock for both uppers and soles had been given out in skins and sides, leaving it to the shoemaker to cut wisely and economically. What he could save by honest or dishonest means he felt free to keep in his " cabbage " stock box under his low shoemaker's bench. Old shoemakers are found now in every locality who recall with bitterness certain individuals whose dishonesty and poor work led to the development of the central shop. They blame the open way in which scrap leather buyers went about on regular routes to buy up the accumulated " cabbage " stock, which meant loss to the capitalist, while it was a source of profit to the shoemaker and presumably to the scrap-man. These old people make the complaint with little realization that the boot and shoe industry has simply followed the example of the silk and the woolen industry in experiencing, in the course of growth, the need of saving stock as well as time, and of giving to agents the power of inspection formerly exercised by the gild officials of the Middle Ages or by the master shoemaker of early colonial days.

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[1] The name was not exact, for the size of domestic shops ranged from 10×10 to 14×14.

The central shop system rapidly developed after 1820. The stock was cut there, and portioned out, ready to deliver to workers to do the " fitting," *i. e.* the work on the uppers, siding up of seams, binding, counter and strap stitching. When this process was completed the uppers were returned to the central shop and given out with the proper number of roughly cut soles, as well as a definite quantity of thread, to " makers " who would last and then sew the boots and shoes. The makers had to wait generally for their work to be inspected or " crowned " at the central shop. The volume of trade and the amount of specialization can be understood by the study of a single month's business dealings in one firm's ledger for 1833.[1]

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[1] White & Whitcomb of East Randolph (now Holbrook) were employing in 1833, from Sept. 4th to Oct. 4th, 12 men and women to do fitting, 30 men to make, and 1 man to do all the cutting, pasting and blacking. Both the styles and the finish were crude, and this is about the usual proportion of labor, — that is, one central shop worker to about forty domestic workers. The large sales during that month were to the following firms: —

	Amt.	No. prs. shoes
J. C. Addington & Co.	$226.18	250
Porter & Tileston	$205.64	212
B. C. Harris	$ 57.50	50
C. W. Howes & Co.	$257.50	250
C. W. Howes & Co.	$237.40	262
N. Houghton & Co.	....	218
Wm. Tiffany	$100.00	100

The capitalist had to divide his time between his Boston office and his home shop, dealing with buyers, writing letters to order stock and conclude bargains, and deciding on the manner of payment and transportation.[1] He must have been paying attention also to tariff legislation at Washington.[2] He was planning and examining ways of investing the profits of the shoe business in other directions. Many shoe merchants of Massachusetts speculated in Maine lands [3] in 1820–30 and in Western and Southern lands in 1830–40. Not only individual shoe-merchants were in the speculating, expanding mood; whole shoe towns were also.[1] The big fortunes and the market as well came to a sudden end in the panic years of 1837–38. The money tied up in land investments could not be got out in time to tide over the epidemic failures. Then the Massachusetts Bankruptcy Law, by relieving debtors, settled the nicely poised fate of their braver more far-sighted creditors. Ninety per cent of the shoe merchants had to fail.[2] As a rule the men who had smaller trade and smaller risks "held on" grimly, to become the back bone of a new phase of the Domestic System.

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[1] PHILAD. 9th 22, 1821.

RESPECTED FRIENDS
H. &. L. REED

Your favour of 17th inst. was recd this morning informing that you had received the box of calf-skins and am sorry that they did not give satisfaction. The price at which they were invoiced is lower than skins are now selling for and if you think proper you can return them and we will pay the freight back cheerfully. We are sorry you have been disappointed but we are certain you could not now buy calf skins of similar quality in this city or in New York at so low a price, calfskins of light kind have been sold by tanners here last week at $27 per doz. in the rough. Very respectfully,

Your assured friend,
C. & W. ROBINSON & Co.

(Mail to Boston)

NEW YORK, Oct. 29, 1821.

MESS. H. & L. REED
GENTLEMEN

We herewith enclose you a Mechanics Bank Dft for Twelve hundred and eighty six 35/100 dollars the receipt of which you will please acknowledge to our mutual friends Hubbard Hayden of Richmond, Va., and oblige yours,

Very respectfully,
CUNNINGHAM & McCORMICK.

[2] In 1816, the duty on boots was advanced to $1.50 a pair. In 1824 this amount was put on laced boots or " bootees " and a tax of 25c. a pair put on prunella or other shoes and slippers. No reduction was made on these heavy protective rates until 1842.

[3] The Littlefield Bros. of East Stoughton (now Avon), who were making money in the Cuban and New Orleans trade, invested over $80,000 in Aroostook County land before 1836. They " pulled out before that money was lost" in the general hard times of 1837, because they needed ready money for the New Orleans trade. There the business amounted to $100,000 a year between 1828 and 1837, but in the early 40's the results of mismanagement and the general effects of the financial depression combined to bring bad debts, so that the firm had to be content to take payments in lands in Mississippi and Teaxs just when land was a drug on the market.

The Reeds of Weymouth, who had grown rich out of a wholesale boot and shoe trade with such distributing centers as Richmond, Savannah, New Orleans, and Havana, invested in 1833 in Maine lands. Harvey Reed bought a whole Maine township at 9 pence an acre. Quincy Reed, however, withstood the land lure and had for a side issue a grain business which kept four schooners busy in the coastwise trade and with Spain. The bills of lading show the details of this enterprise.

By 1840 a new trade with new markets was gradually emerging from the boot and shoe trade, but it had to be coaxed. New styles, niceties and novelties in processes required, however, greater specialization. No manufacturer could afford to lose a single customer by slip-shod work or poor stock.[3] The competition for employment gave the employers a chance to choose only the best workmen. Shoemakers who had developed a reputation for a specialty[4] were in demand.

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[1] Lynn built forty-three new streets between 1831 and 1840. North Brookfield, which in 1820 had "nothing doing, no new buildings going up, the same old dwelling houses and farms satisfying the people," had more than one hundred houses newly built by 1838 and old houses had been repaired.

[2] Cf. Eleazar Beal and Cox notes for details of some specific cases.

[3] Johnson of Lynn tells of the helter-skelter work of the previous booming days. Good grain leather uppers and best quality soles were spoiled for wearing shoes by paper stiffenings. Shoes were so badly sewed that they easily dropped to pieces, or well sewed but trimmed so close to either edge that you could not wear a pair a second time before the stiches pulled out. Shoe manufacturers say that very cheaply made shoes are a concomitant of general hard times when "anything will sell that looks well and will hold together till the purchase is made." In good times, "even mill hands won't buy them."

[4] Samuel White of Randolph (*b.* 1831) was known as a champion rapid pegger; spectators came from neighboring towns in the late forties to watch him work in his little ten-footer on Union Street. He has told me that his speed was gained by using both hands at once running the dink, using the awl, and hammering in pegs in quick succession, while he held the pegs in his mouth.

In the old days the shoemaker-turned-capitalist could keep his workers in hand by very casual inspection or a wholesome fear of it. The outsider, as capitalist, could hope at most to know the stock and did not try to master the processes. He was generally wise enough to take as partner a man who knew the trade and could put his brains against money.[1] Otherwise the new shoemaker had to trust entirely to expert workmen, to foremen and agents who were devoted to his interests, and let them determine the details of stock and processes while he looked out for markets and profits.

The market was already making hints if not demands as to styles instead of accepting quietly anything the shoemaker provided. The use of different shapes and widths of block lasts came in the early forties, makers no longer depending upon "instep leathers" for making "fulls" and "slims." Sole patterns gave uniformity of shape and width at ball and shank. Patterns for rounding the soles after they were stitched and irons for polishing the edges were invented and used. Heels were put on women's shoes again[2] and men began to specialize in heeling. More workers were taken into the central shops and expected to do one thing "up to the standard." They were hired to tree boots, or to finish bottoms. Not only every sole in a case must be uniformly finished, but the appearance of the shoes in all the cases sent to one customer must be the same.[1] This increasing specialization led to the entrance into the shoe trade of young men and women who learned and knew just one process, and the cessation of regular apprenticeship [2] for shoemakers.

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[1] A typical case was that of Eddy & Leach of Middleboro. Deacon Eddy had a general store and the postoffice and was worth $10,000 which had been made, in part, in the shovel business. George M. Leach, whom he took as partner (1852) for the new enterprise, had only $200 but was a regular shoemaker who had previously owned a ten-footer on his farm and "taken out" shoes to make.

[2] Spring heels, which took the place of high ones in 1830, had given place to no heels at all. Brogans were almost heelless, having but one lift. Cf. Johnson, Lynn Sketches, p. 340.

Not only did labor have to become more specialized and efficient in this recuperating period of the forties, the third and final phase of the Domestic Stage, but it had to be economized to meet closer competition. That fact, added to the demand for standardization of product, led to the introduction of machinery into the boot and shoe industry. Up to the forties the shoemaker had used mainly tools, and just such as had been used for centuries.[3] His kit included knives to cut upper and sole leather, a lap stone and hammer for pounding leather, awls for pegging holes, a stirrup for holding the shoe in place on the knee, pincers to pull the leather over the last, nippers to pull out tacks, bristles for needles and hemp thread for sewing, a buffing knife or scraper for the sole leather and a shoulder-stick for polishing soles. Then there came a little skiving machine run by hand and not very satisfactory to the older men, accustomed to skiving with a regular knife. The next machines to be invented for boot and shoe work were the "stripper" for cutting up sides of sole leather, and the "sole-cutter." A leather-rolling machine came in 1845 to save both time and strength formerly used in hammering sole leather on a lap-stone. Several styles of pegging machines[1] and a machine for cutting up pegs had been patented and put in general use by the time[2] the sewing machine, invented by Howe in 1846, had been adapted to upper leather work on shoes by John Brooks Nichols in 1852.[3] There was the "dry thread" machine with a shuttle and two threads for the lighter upper work, and the "wax thread" to do chain stitching for the heavy work of "siding up" bootlegs. These sewing machines even then impressed people with their significance. Instead of merely making things easier or a "bit more speedy," they produced work which could not be matched by hand in either speed or appearance.[4]

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[1] Henry P. Crocker of Raynham, 85 years old in 1912, described one case of this transition. The finishing of soles had been done outside with little uniformity by the individual "makers" who put on the soles. When the Gilmore Factory took the process into the central shop they gave a man only 1c. a pair, however, for finishing. Several men had failed to make a living at it and Crocker hesitated at the offer in 1847, for he was getting $9 a month "making" for someone else. Soon, however, he was earning $1 a day, then $2 and sometimes $3. His "partner hand," working beside him, did the sand-papering; Crocker put on the oxalic acid to whiten the leather, polished it with a sheep's leg bone, stamped it with the firm name and gave it to another man to "dress."

[2] There seems to be no definite, or even indefinite, case in Massachusetts of a shoemaker's becoming a regular apprentice to learn to make a whole boot after 1840. This has been a point in my investigation for several years.

[3] Interesting details of similar early tools and methods of shoemaking in Germany are given in Beitrag zur Geschichte der mechanischen Schuhfabrikation, by Gewerbeassessor Dr. Rehe, Breslau, pp. 186–187.

By 1855 so general had become the use of sewing machines that shoemakers who could afford it had them in their homes to use on both cloth and leather. But it was generally the manufacturer who put the machines into his central shop, or the man with some capital and genius for machinery, who bought or leased the "wax thread" and "dry thread" machines and set them up either in a stitching shop or in a central shop where space was hired. Men and young women followed the machines, leaving the older people to "side up" and bind shoes by hand at home.[1] Thus a new stage of organization had come in the boot and shoe industry, bringing to an end not only the third phase but the main life of the Domestic Stage, where the "putting out" system had prevailed and the entrepreneur had worked in his central shop while the domestic workers labored in their "ten-footers." Only the "making" (*i. e.* lasting and bottoming) of sewed shoes continued to be done by domestic workers far into the next period, until the McKay machine for sewing the soles and finally the Goodyear welting machine put an end to this last survival of the Domestic System.

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[1] Cf. Rehe, pp. 188–189, for the story of Krantz and the introduction of the pegging machine into Germany.

[2] Proofs of dates of invention are in an unsatisfactory state at present. Not only local historians and biographers, but the United States Census Reports of 1860 and 1900, give merely approximate or relative dates for many inventions and for their introduction to practical use. Only a minute study of the patent records could furnish an indisputable array of such dates.

[3] For details concerning Nichols and his adaptation of the Howe Machine, see The Sewing Machine Journal of April 25, May 25, 1904, July 10, July 25, and February 10, 1911. These are first hand reports and illustrated. They give valuable facts on the Howe-Singer-Leavitt machine controversy.

[4] In the United States Census Report of 1860 (p. 71) this significance was not only expressed but coupled with an interesting prophecy. "The crowning invention of all, which has supplanted and given value to all other kinds of machinery, in the manufacture of boots and shoes, is the *sewing machine*. It has introduced a new era in the trade. Without it, the partial use of machinery upon the bottoms of boots and shoes was attended with little economy, because the cost of *stitching and binding* the uppers, which was the larger item of expense, was not reduced in a corresponding degree. Altho of quite recent introduction in this branch of industry, its employment along with the sole-cutting machine, and other appliances, is gradually bringing about a *silent revolution* in the boot and shoe manufacture. . . . It is safe to predict that this change will go on until the little workship of the shoemaker with its bench and kit shall become a thing of the past as is the hand card and the great and little spinning wheel."

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[1] The books of Howard & French of Randolph for these years and of E. Twitchell & Co., of Brookfield, show the hand work and machine work going on side by side, and the relative cost and volume of each. The Twitchell firm had specially ruled and printed ledgers for record of work "put out."

Date when taken	Binders name	No. of Case	Kinds of Leather				Quality		Sizes	When Re-turned	Price paid
			Clf.	Kip.	Buff	Split	1st.	2nd.	Wom. Miss Chil.		

This allowed the firm to keep track of where the stock was, even if it did not secure its speedy return.

The Twitchell order-book shows not only the prices and distribution of the goods made in the 50's and 60's, but the means of transportation by various "young railroads" and western despatch companies. The Howard & French books show the order and truck payment system surviving well up to the end of this Domestic Period. They employed Elbridge Jones and Jerome Fletcher, who were stitchers, by the day at a uniform wage of $1.66 2/3 a day, paid partly in cash, in dinners (at the rate of 14⅔c. apiece) in stock, in butter, in hay. Howard & French had their own general store, and seldom gave orders on other stores.

There is much evidence in such account books to confirm the accuracy of the picture given by F. A. Walker (Wages Question, p. 136) of the methods in which payments of wages were made in New England before the Civil War.

(d) FACTORY STAGE

The expansion which came after 1850, associated with the Californian and Australian gold discoveries, emphasized the increasing economy of large scale production, and hastened the transition from the Domestic to the Factory System. Immense orders with big profits stirred and pushed to its very limit of production the boot and shoe industrial organization. Forty-niners who had left shoemaking relations at home or gone out from shoe towns, naturally saw the chances for marketing Massachusetts boots in California. The same held true in Australia.[1] Meanwhile the southern and southwest markets held steady with growing orders. Even the crisis of 1857 did not do general damage enough to interrupt the increasing shoe trade.

Agents sent home more orders than could be filled with the old rate of speed and equipment. When the hundred or more cases were engaged to go on a certain steamer, due to leave Boston[2] for its route round

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[1] Randolph boot manufacturers were among the firms to profit earliest by this trade. Mr. Jonathan Wales left his home town in time to have a shoe store established in San Francisco in 1851. At first he bought his goods of the Wentworth, the Whitcomb, and the Howard & French factories of Randolph. His business increased until he was handling the output of over twenty firms in Randolph, Stoughton, and North Bridgewater. Meanwhile he had entered the firm of Newhall and Gregory of San Francisco, who sold at auction all the boots and shoes consigned to Jonathan Wales.

Mr. Frank Maguire established himself as agent in Melbourne, Australia, and marketed almost the entire output of the Burrell and Maguire factory in Randolph. Both Mr. Wales and Mr. Maguire, as distributing agents, sent home to their employing manufacturers new orders that then seemed incredibly large, and either drafts on Boston banks or bags of gold. I have seen at the home of Mr. Wales' son and daughter some of these bags, made of white drilling and stencilled with large figures giving the amounts, sometimes as high as $20,000. A large silver salver presented to Mr. Jonathan Wales in 1856, gives the names of twenty men connected with the firms which had profited by his skill and efforts.

[2] Advertisement cards like the following were sent to manufacturers: —

Winsor's Regular Line, For San Francisco.
From India Wharf.
To sail June 25th. The Celebrated Extreme New York Clipper Ship Golden City
Capt. Leary.

This Ship has been put in the most perfect order, and is now in her berth with a part of her cargo on board. She is THE great favorite with New York shippers.

"the Horn" on a certain day, duly advertised, the boots must be done on time or risk being rejected at their tardy arrival in California or Australia. The domestic worker had enjoyed all the latitude he needed or wished. He sowed his fields and cut his hay when he was ready. He locked up his "ten-footer" and went fishing when he pleased, or sat in his kitchen reading when it was too cold to work in his little shop. The agents or "freighters,"[1] who came down from Maine and New Hampshire with sample shoes to show the workmanship and to take back big express wagons full of un-made boots and shoes, were never sure when washouts or snow storms might delay the return of the stock. Books show that the women who "fitted" and the men who "made" boots and shoes were irregularly employed before the late fifties, and obviously at their own request. They knew that the work must be inspected at the Central Shop before they were paid, but the pay "would keep."

The rush, then, of the California and Australia trade put a stop to this condition in every shop when it brought orders from new trade or increased those from the old. More crimping and finishing, as well as cutting, pasting, and finishing was done "under the roof." There was now a greater inducement to manufacturers to invest in sewing machines for the

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Her passages have been made in 102 and 106 days, while other clipper ships, sailing at the same time, were 120 days.

Her ventilation is perfect, and her cargoes have been delivered in the most perfect order. Shippers who wish to be sure of their goods reaching California in October, will appreciate her.

The well known favorite medium ship CROMWELL, Capt. Adams, now in her berth, and loading, will sail about the 1st of July.

For Freight or Passage, apply to

NATH'L WINSOR, JR. & CO.
corner of State and Broad Sts.

June 7, 1858. Watson's Press, 25 Doane St.

[1] Cf. Spinney, Mullen, and Amasa Clarke notes.

uppers and to have the siding up and binding done in the shop by alert younger women and men, instead of by the old women at home. Practically the whole laboring population[1] of a shoe town was employed in the shop or the factory. Even for the making of boots a "gang"[2] of four or five men frequently hired a room in the vicinity of a central shop, or in it. Thus the manufacturer, to save time and to hold markets by prompt delivery of large orders in the fifties, unconsciously completed the movement well on its way in the forties, in order to meet competition and the demands of standardizing, of having shoemaking done under one roof under supervision. This is the chief characteristic of the Factory Stage of the boot and shoe organization; it had entered the industry gradually and almost unawares.

Larger buildings, now called manufactories, more capital, larger supplies of stock were the more apparent features of the growing boot and shoe trade even in the fifties.[3] By 1860 steam power was being intro-

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[1] Statistics of the Massachusetts Census of 1865 show the following proofs of this: —

	Engaged in Manufacture		Engaged in Agriculture		In Boot & Shoe Manufacturing	
Town	Males	Females	Males	Females	Males	Females
Randolph	1845	281	61	0	1789	248
Stoughton	1051	254	200	0	964	184
Abington	2605	358	165	0	2479	346
North Bridgewater	1231	213	240	0	1059	208

[2] 1 lasted,
1 pegged and tacked on soles,
1 made fore edges,
1 put on heels and "pared them up."
and in the case of hand sewed shoes 2 or 3 sewers were needed to keep the rest of the gang busy.

[3] There was, for example, the new Gilmore factory built in Raynham in 1857; very different from the usual grocery store or private house, turned into a central shop. It seemed like a visible proof of big trade and profits, for it had a wide porch with Doric columns, office fitted with Venetian shades and black walnut desks and railing; an elevator and dumb waiters; speaking tubes from every room to the office; a steam whistle to summon employees, and a driveway through the lower floor for ease and expediency in receiving and shipping freight. There was a carpenter shop and a special carpenter. The large machine shop, with a forge and a machinist permanently in

duced into the larger manufactories, making the hand labor of the domestic worker seem pitifully slow in comparison with the stitching done by steam driven machines. By the time the Goodyear Welt machine was put on the market in 1875 and people at large realized that the Factory System had come and the Domestic had gone [1] one whole phase of the Factory System had already passed.

The Factory System, which had come in the late fifties, was the prevailing type of organization during the Civil War. The large orders of shoes for the Union Armies, added to the scarcity of labor caused by the volunteering and drafting of soldiers, were additional important factors in the use of machinery in general and in encouraging the trial of the McKay machine. During the War the practicability of the McKay machine with steam power was demonstrated, and it was widely adopted during the late sixties. More specializing came on the part of both shoe workers and manufacturers. Some southern Massachusetts

charge, was probably one of the chief reasons why Mr. Blake and Mr. McKay came to this factory, five years later, to try out the McKay machines. Meanwhile Mr. McKay was urging the Gilmore brothers to help finance the movement of putting the machine on the market.

[1] The Massachusetts Census for 1875 (vol. ii, p. 825) gives tables showing the number and wages of women " furnished with work to do on boots and shoes at home " for the year ending May 1, 1875. A few are given here: —

Town	Number of Women	Total Yearly Wage	Yearly Average wage of each domestic worker
Amesbury	4	$700.00	$175.00
Lynn	575	82,559.00	143.58 +
Haverhill	225	20,207.00	89.80 +
Randolph	39	1,750.00	44.87 +
Stoughton	2	150.00	75.00
Webster	35	1,200.00	34.28
No. Brookfield	6	690.00	115.00
Braintree	1	300.00	300.00

These figures show that there was a marked difference among these few domestic workers either in the amount, or regularity, or the quality of their work, and also a wide difference in the completeness with which the factory system was adopted in these old shoe manufacturing centers.

towns made shoes only, others boots. Some towns in the western part of the state made only cheap brogans for laborers, while others made a finer grade of shoe to be distributed by New York jobbers. The increased variety of styles within this classification made it necessary to dispose of stock while it was in fashion.

The " expansion tendency " of the decade after the Civil War led, as it did in the thirties, to over speculation. Shoe manufacturers put more money into railroad stock and western lands than they could steadily hold there, so that when the hard times of 1873 came, many failures were found in the shoe trade.[1] Thus the first phase of the Factory Stage, like the second phase of the Domestic Stage, closed with a sense of disaster and had again to be followed by a period of recuperation.

The history of the boot and shoe industrial organization since 1875 makes the story of the second phase of the Factory Stage. Its course may be simply indicated, being outside the limit set for this paper. It has been characterized chiefly by an intensive system of production, tho in common parlance its chief characteristic has been the use of the Goodyear Welting machine. Competition, which has been not only acute but world-wide, has forced economies and heightened the chance of loss on the ever-increasing variety of styles which the product must take to capture the market. The insistent discovery and use of by-products, the absorption of allied industries by some shoe manufacturing firms, and the greater reliance placed by others on highly specialized allied industries,[1] the immense increase in the size of plants and of the number of employees, have all necessitated the perfecting of the factory system. The rise of the " labor problem " with the closely contested struggles with organized labor has also especially characterized this period. This central phenomenon, however, together with the other factors of transportation, market organization, and finance, which have so profoundly modified industrial organization, must be left for later presentation.

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[1] The trouble caused by the St. Crispin organization in demands and strikes did not seem to make serious financial difference to the Massachusetts shoe industry. Local accounts of specific contests, while interesting and prophetic of later union trouble, do not affect this conclusion, nor put the blame for failures in the shoe trade on the shoulders of labor.

BLANCHE E. HAZARD.

RADCLIFFE COLLEGE.

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[1] The signs seen on buildings when one approaches a shoe manufacturing center, showing where heels, rands, counters, welting, findings, patterns, lasts, dies, cartons, and boxes are made, furnish a graphic illustration of the scope of allied industries. These make possible what Marshall calls " external economies " arising from " the concentration of many small businesses of a similar character in particular localities " ; the " subsidiary trades " which grow up in the locality of a large industry, " supplying it with many implements and materials, organizing its traffic, and in many ways conducing to the economy of its material." Principles of Economics, pp. 266–271 (6th edition).